

300W, Rugged Industrial Quality AC/DC Power Supply HBC 65-FT Series



- Rugged, industrial quality
- Single regulated and adjustable output
- Convection/conduction cooling
- Full electronic protection
- Field-proven design
- N+1 redundancy available

This rugged AC/DC industrial quality power supply utilizes a field proven topology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is by conduction via baseplate to a heat-sinking surface and by natural convection. An optional built-in redundancy diode allows for parallel and N+1 operation. Full electronic protection, low component count, large design headroom, and the use of components with established reliability contribute to high MTBF. The unit is manufactured at our plant under strict quality control. Customized versions and fan-cooled versions with increased output power are also available.

SPECIFICATIONS

Input Voltage

115/230VAC \pm 15%
47 - 63Hz
Voltage selection by internal jumper
Input also accepts 220-370Vdc range

Input Protection

Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

2250VDC input to chassis
4300VDC input to output
8mm spacing
500VDC output to chassis

Standards

Designed to meet EN60950-1 and corresponding UL and CSA standards

EMI

EN55022 Class A with margins

Switching Frequency

55KHz \pm 3KHz

Hold Up Time

Minimum 10ms at full load for 5% drop of output voltage at nominal input

Output Voltage/Current

12VDC/25A, 24VDC/12.5A,
48VDC/6.25A or 125VDC/2.4A
Total output power 300W continuous
Output is floating; either terminal can be grounded
Other voltages on request

Redundancy Diode

Installed on request

Line/Load Regulation

\pm 1% combined from zero load to full load

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple / Noise

Less than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
Thermal shutdown in case of insufficient cooling (self resetting)

Output Overvoltage Protection

Double regulator loop completely stable and independent of main loop

Efficiency

Output voltage dependent.
Typically 80% at full load

Operating Temperature Range

0° C to 50° C for full specification without de-rating.
Extended temperature ranges available on request

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction via base plate to customer heat-sink or chassis and natural convection

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating available as an option

Shock/Vibration

IEC 61373 Cat 1 A&B

MTBF

150,000 at 45°C
Demonstrated MTBF is significantly higher

Indicators

None on standard version

Control Input

None

Alarm Output

Output fail alarm Form C contacts installed on request

Package/Dimensions (W x H x L)

F3: 132 x 62 x 300 mm
(5.2" x 2.43" x 11.8") including terminal block and flanges
Mounting holes are clear

Weight

2 kg (4.4 lb)

Connections

12 pole barrier type terminal block with 3/8" spacing

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice



European Stocking Distributor
Phone: +41 44 730 33 53

Email: sales@hvps-condatas.com / www.hvps-condatas.com
Rietbachstrasse 7, 8952 Schlieren (ZH), Switzerland